



Arduino Morse-Maker

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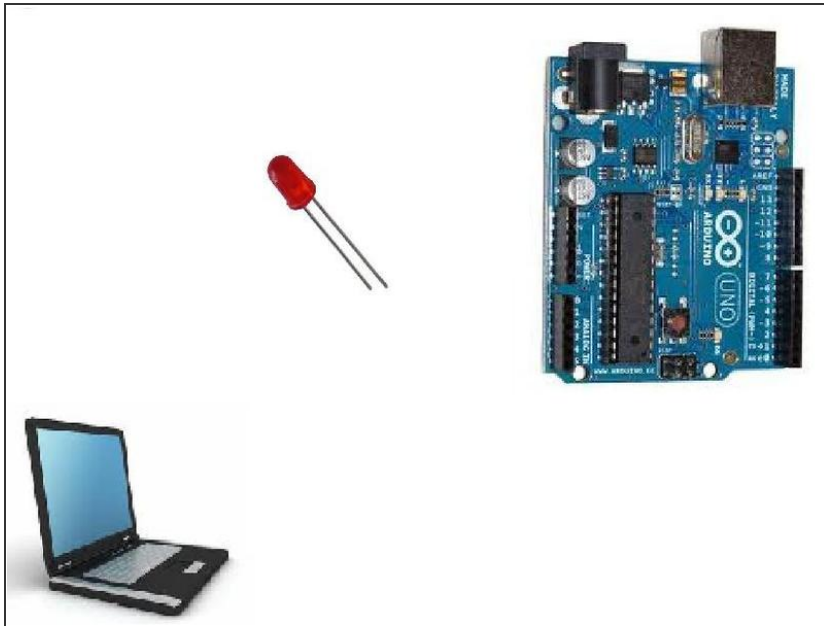
PARTS:

- [Arduino Uno \(1\)](#)

SUMMARY

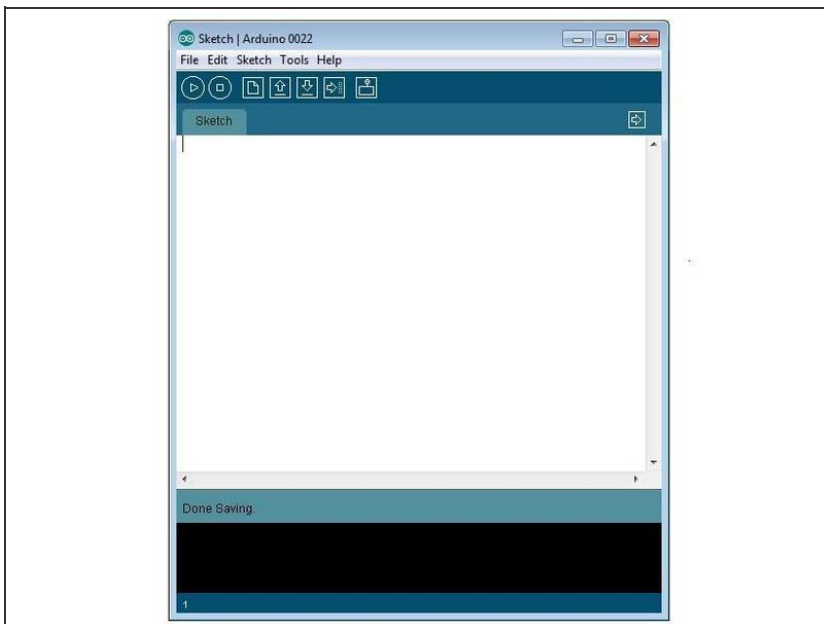
This is a fun and educational project. With this project you can learn the basics of Arduino serial coding, which enables your computer to interact with your Arduino via USB. Plus, you can Morse out a distress signal, which may save you sometime.

Step 1 — Arduino Morse-Maker



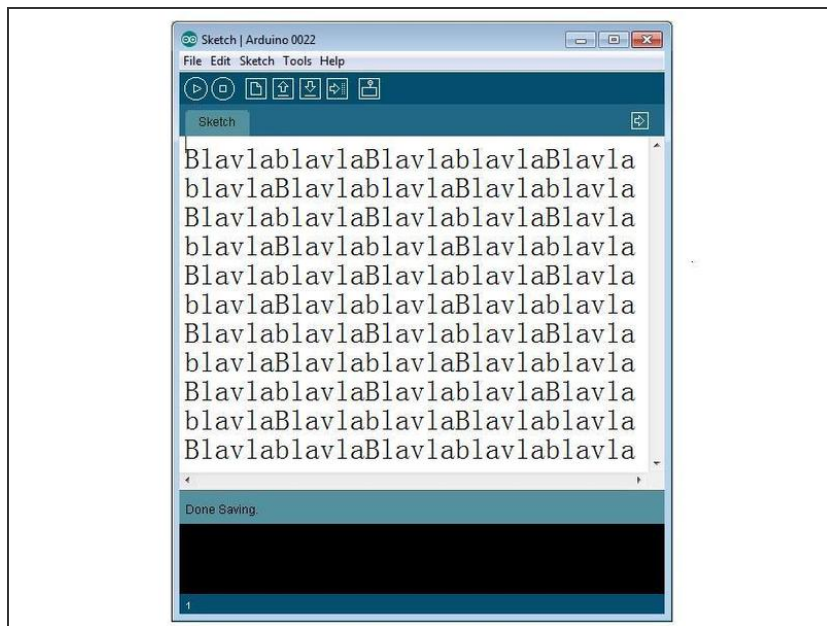
- First, you must gather all of the parts needed. All you need is the following:
- An Arduino; any type will work.
- A computer with an Internet connection.
- Optional: An LED.
- Basic knowledge of the Arduino is recommended.

Step 2



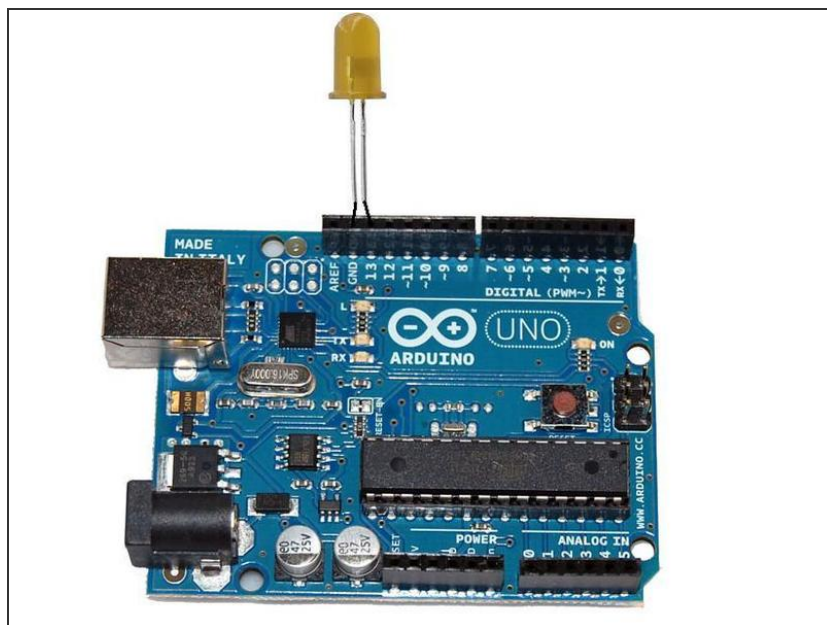
- Next, download the Arduino software. Really easy.
- Plug in your Arduino and begin coding.

Step 3



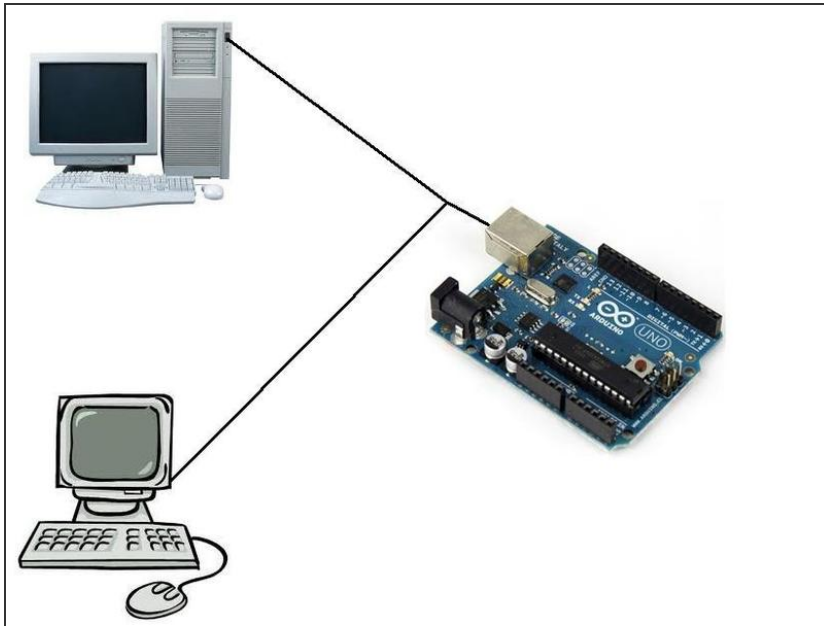
- Now, to code, go to this link, and I will go through it.
- <https://docs.google.com/document/d/1S-SO...>
- Now, the setup, is just that.
- You see all of the Serial.??? stuff? Well, that is coding up a way to communicate with the computer.
- and most commonly, you see that it says a bunch of "If" statments, like `val == 'a'...` Well basically, we are saying, if `val = 'a'` then do this, which, we blink and led to a certain beat, or morse out a signal. And basically, that's it.

Step 4



- This is optional, but if you want to see a greater light than the one built in on the Arduino board, hook up an LED on pin thirteen.

Step 5



- Now, upload the sketch, and go to tools, and serial monitor on the Arduino programming program. Type whatever you want, and it will Morse it out.
- Note: This will be limited to letters, and nothing else is on there. So adjust it to do that.

Step 6



- As you can see, this will get boring, so here is a thing or two you can do to perfect this project or add to it.
- Add a pot! What if a pot controlled a variable, and that variable was used for timing? Thanks to Ben Hovinga for this idea.
- What if this controlled more than an LED? Maybe some solenoids? Motors? Or even less casual, a speaker?
- What if we added a display, and took away the computer part of this project?
- How about combining it all?
- These are all different ideas, but there are millions of things you can add. Be creative, and go make something.

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